

SODIUM SULFATE STATISTICS
By Kenneth E. Porter and Dennis S. Kostick
[All values in metric tons (t) unless otherwise noted]
Last modification: March 19, 2002

Year	Primary production	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1920	13,500				13,500	16.41	133.00	
1921	4,450				4,450	1.91	17.40	
1922	4,550				4,550	7.95	77.10	
1923	9,140				9,140	10.94	104.00	
1924	14,700				14,700	11.88	113.00	
1925	9,020				9,020	9.36	86.60	
1926	17,800				17,800	9.37	86.00	
1927	20,900				20,900	8.07	75.40	
1928	5,970	4,650			10,600	7.12	67.80	
1929	6,840	89,200	1,510		94,500	6.02	57.40	
1930	29,600	73,900	4,020		99,400	6.97	68.30	
1931	29,500	76,200	4,220		101,000	6.72	71.90	
1932	29,200	63,800	1,300		91,700	7.20	85.90	
1933	42,200	100,000			142,000	5.81	73.10	
1934	15,100	89,500			105,000	9.81	120.00	
1935	189,000	106,000			294,000	9.32	111.00	
1936	46,800	149,000			195,000	7.20	84.70	
1937	244,000	215,000			459,000	10.70	121.00	
1938	72,800	136,000			209,000	8.20	95.00	
1939	124,000	141,000			265,000	8.27	97.10	
1940	168,000	66,200			234,000	9.11	106.00	
1941	682,000	68,900			751,000	9.11	101.00	
1942	765,000	85,300			850,000	10.33	103.00	
1943	775,000	29,900			805,000	10.83	102.00	
1944	786,000	28,100			814,000	10.64	98.50	
1945	757,000	18,100			776,000	10.29	93.60	
1946	742,000	20,000			762,000	9.44	78.70	
1947	934,000	44,500			979,000	9.39	68.50	
1948	927,000	27,200			954,000	14.28	96.50	
1949	754,000	19,100	12,700		760,000	17.61	121.00	
1950	845,000	60,800	15,400		891,000	16.20	109.00	
1951	1,050,000	73,500	23,600		1,100,000	12.96	81.50	
1952	946,000	50,800	25,400		972,000	14.08	86.40	
1953	1,050,000	55,300	25,400		1,080,000	14.96	91.20	
1954	917,000	108,000	22,700		1,000,000	14.85	90.00	
1955	1,060,000	113,000	22,700		1,150,000	17.15	105.00	
1956	1,070,000	93,400	27,200		1,140,000	20.81	125.00	
1957	1,010,000	68,000	21,800		1,060,000	21.31	123.00	
1958	908,000	88,000	18,100		978,000	21.79	123.00	
1959	1,040,000	111,000	20,000		1,130,000	21.33	119.00	
1960	1,010,000	151,000	28,100		1,130,000	21.03	116.00	
1961	1,060,000	178,000	29,000		1,210,000	21.33	116.00	
1962	1,080,000	171,000	46,300		1,210,000	21.99	118.00	
1963	1,120,000	145,000	40,800		1,220,000	21.88	116.00	
1964	1,190,000	263,000	39,900		1,420,000	21.27	112.00	
1965	1,270,000	248,000	11,800		1,510,000	21.07	109.00	
1966	1,310,000	215,000	25,400		1,500,000	19.60	98.50	
1967	1,240,000	262,000	25,400		1,470,000	19.41	94.70	
1968	1,350,000	277,000	50,800		1,570,000	18.53	87.00	
1969	1,340,000	259,000	82,600	43,000	1,510,000	20.04	89.13	
1970	1,250,000	244,000	49,900	31,000	1,440,000	20.16	84.62	

SODIUM SULFATE STATISTICS
By Kenneth E. Porter and Dennis S. Kostick
[All values in metric tons (t) unless otherwise noted]
Last modification: March 19, 2002

Year	Primary production	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1971	1,230,000	243,000	59,900	77,100	1,410,000	17.64	71.01	
1972	1,200,000	271,000	26,300	80,700	1,450,000	17.92	69.85	3,760,000
1973	1,300,000	290,000	40,800	14,500	1,620,000	19.04	69.83	4,030,000
1974	1,220,000	340,000	46,300	22,700	1,510,000	26.44	87.41	4,130,000
1975	1,110,000	259,000	69,900	28,100	1,300,000	45.71	138.50	4,440,000
1976	1,120,000	287,000	51,700	50,800	1,330,000	54.26	155.40	4,460,000
1977	1,090,000	202,000	39,000	84,400	1,220,000	50.82	136.70	4,090,000
1978	1,060,000	123,000	76,200	51,700	1,140,000	50.75	126.80	5,240,000
1979	1,020,000	171,000	92,500	26,300	1,120,000	61.39	137.90	5,500,000
1980	1,030,000	209,000	117,000	29,900	1,120,000	68.79	136.10	4,530,000
1981	1,010,000	249,000	112,000	59,900	1,110,000	79.30	142.10	4,600,000
1982	784,000	357,000	101,000	27,200	1,070,000	91.51	154.60	4,380,000
1983	829,000	311,000	82,600	43,500	1,040,000	102.83	168.30	4,310,000
1984	817,000	240,000	68,900	53,500	979,000	101.54	159.40	4,400,000
1985	736,000	177,000	108,000	28,100	830,000	101.66	154.10	4,490,000
1986	763,000	171,000	101,000	65,300	796,000	94.93	141.20	4,590,000
1987	725,000	125,000	111,000	50,000	754,000	97.30	139.60	4,900,000
1988	743,000	136,000	77,000	54,000	798,000	86.87	119.70	4,860,000
1989	685,000	173,000	62,000	24,000	826,000	91.55	120.40	4,870,000
1990	713,000	162,000	62,000	39,000	798,000	90.13	112.40	5,000,000
1991	720,000	157,000	103,000	35,000	778,000	88.61	106.00	4,840,000
1992	553,000	158,000	155,000	47,000	544,000	91.86	106.70	4,300,000
1993	537,000	163,000	89,000	42,000	616,000	76.54	86.37	4,980,000
1994	591,000	190,000	65,000	34,000	724,000	81.22	89.32	5,180,000
1995	645,000	206,000	66,000	16,000	803,000	84.50	90.38	5,310,000
1996	602,000	177,000	85,700	19,000	690,000	88.87	92.35	5,370,000
1997	640,000	150,000	86,300	26,000	697,000	98.91	100.50	5,520,000
1998	571,000	110,000	90,000	33,000	591,000			5,600,000
1999	599,000	87,000	137,000		549,000			5,750,000
2000	491,000	73,000	165,000		399,000			5,750,000

Sodium Sulfate Worksheet Notes

Data Sources

The sources of data for the sodium sulfate worksheet are the mineral statistics publications of the U.S. Bureau of Mines (USBM) and the U.S. Geological Survey (USGS)—Minerals Yearbook (MYB), and Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). Natural sodium sulfate production and stock data were collected by USBM and USGS. The U.S. Census Bureau collected natural and synthetic sodium sulfate production, import, and export data. The years of publication and corresponding years of data coverage are listed in the references section below. Blank cells in the worksheet indicate that data were either not available or were withheld because they are proprietary.

Primary Production

Natural sodium sulfate production data were first reported in the 1932-33 MYB with data back to 1920. First mention and data reporting for manufactured (synthetic) sodium compounds from chemical works were in the 1937 MYB with regular reporting of data for manufactured compounds starting in the 1945 MYB. Reporting of natural sodium sulfate production data ended after 1997 because the data were proprietary, resulting in the termination of the MYB chapter. Combined natural and synthetic sodium sulfate production data obtained from the U.S. Census Bureau continued to be reported in the MCS.

Imports

Import data were first reported in the 1932-33 MYB with data back to 1928 and initially included only Glauber's salt and anhydrous sodium sulfate. Data for crude sodium sulfate (salt cake) were reported, in addition to the above products, starting with the 1934 MYB. Sodium sulfate import data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate import data continued in the MCS.

Exports

Export data were first reported in the 1932-33 MYB with data for the years 1929-32. Export data for 1928 were not reported separately. Exports were small and not separately classified for the years 1933-48. Sodium sulfate export data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate export data continued in the MCS.

Stocks

Producer stock data were first reported in the 1976 MCS with data back to 1971. Stock data were withheld since 1998 in the MCS because the data were proprietary.

Apparent Consumption

Apparent consumption is defined as follows:

$$\text{APPARENT CONSUMPTION} = \text{PRIMARY PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{STOCK CHANGES.}$$

Both natural and synthetic sodium sulfates are included in estimating the apparent consumption.

Unit Value (\$/t)

Unit value is the value in actual U.S. dollars of 1 metric ton (t) of sodium sulfate apparent consumption. Unit value is estimated by dividing the value of production, imports, and exports by the quantity of production, imports, and exports, respectively, of sodium sulfate as reported in the MYB. Synthetic sodium sulfate is assumed to have the same unit value as natural sodium sulfate for the purpose of valuing the apparent consumption. Sodium sulfate production, import, and export quantity and value data were not reported in the MYB after 1997 because the MYB chapter was terminated. Combined reporting of natural and synthetic sodium sulfate production, import, and export quantity data continued in the MCS, but value data were not reported after 1997. Therefore, unit values were not estimated after 1997.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars. Unit value (98\$/t) cannot be estimated after 1997 due to a lack of reported data.

World Production

Total world production data (natural and synthetic sodium sulfate) were reported in the MYB starting in 1974 with data back to 1972. Sodium sulfate world production data were not reported in the MYB after 1997 because the MYB chapter was terminated. Natural and synthetic sodium sulfate world production data were reported for the year 1998 in the 1999 MCS. After 1999, the MCS estimates world production of natural sodium sulfate at 4,000,000 t and synthetic sodium sulfate at between 1,500,000 and 2,000,000 t, averaging 1,750,000 t.

References

- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
U.S. Bureau of Mines, 1962–77, Commodity Data Summaries, 1962–77.
U.S. Bureau of Mines, 1978–95, Mineral Commodity Summaries, 1978–95.
U.S. Geological Survey, 1997–2002, Mineral Commodity Summaries, 1997–2002.
U.S. Geological Survey, 1997–99, Minerals Yearbook, v. I, 1995–97.
U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

For more information, please contact:

Dennis S. Kostick
USGS Sodium Sulfate Commodity Specialist
(703) 648-7715
dkostick@usgs.gov

Kenneth E. Porter
Minerals and Materials Analysis Section, USGS
(303) 236-8747 x 232
porter@usgs.gov